



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,986	02/10/2004	John F. Yanus	D/A3066	1319

7590 07/18/2007  
Patent Documentation Center  
Xerox Corporation  
Xerox Square 20th Floor  
100 Clinton Ave.  
Rochester, NY 14644

EXAMINER
----------

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
----------	--------------

1756

MAIL DATE	DELIVERY MODE
-----------	---------------

07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/775,986

Applicant(s)

YANUS ET AL.

Examiner

Christopher RoDee

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,6-16,18,20-27,30,31 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6-16,18,20-27,30,31 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 6-16, 18, 20-27, 30, 31, and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The sole independent claim has been amended to require that the first and second charge transport layers each have a thickness of at least 10 microns. Basis for this amendment is asserted as being present in ¶ [0014]. A review of this paragraph shows a description of the charge transport layers as having a thickness of about 5 to about 500  $\mu\text{m}$ , more specifically about 10  $\mu\text{m}$  to about 50  $\mu\text{m}$ . Although this specification passage certainly provides basis for a lower limit of 10  $\mu\text{m}$  in thickness, the specification as a whole does not provide for an unbounded upper limit as currently presented in the claims. For example, the claims as presented include the situation where each layer has a thickness of greater than about 500  $\mu\text{m}$ , such as 1 mm (i.e., 1000  $\mu\text{m}$ ). The specification as filed does not disclose such thicknesses or any value above about 500  $\mu\text{m}$ . Because the claims include embodiments not disclosed or described by the specification, the claims contain new matter.

New claim 35 states that the thickness of the first and second charge transport layers are equal. Applicants refer the Examiner to specification at ¶ [0034] where a specifically

Art Unit: 1756

produced photoreceptor has first and second charge transport layers of equal thickness. This photoreceptor has a total thickness for the first and second charge transport layer of 29 microns. This value of 29 microns is outside the scope of independent claim 1 where the total thickness of the layers is about 25  $\mu\text{m}$ . A value of "about 25  $\mu\text{m}$ " does not include a value about 20 % different. Thus the only apparent support for the limitation where the first and second charge transport layer having equal thicknesses is for a photoreceptor where the combined charge transport layers have a thickness outside the scope of the instant claims. The amendment is new matter as presented.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 6-9, 14-16, 18, 20, 24, 25, 27, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura *et al.* in US Patent Application Publication 2002/0025483 in view of Otsuka *et al.* in US Patent 5,130,222.

Claims 10-13, 21-23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura *et al.* in US Patent Application Publication 2002/0025483 in view of Otsuka *et al.* in US Patent 5,130,222 as applied to claims 1, 6-9, 14-16, 18, 20, 24, 25, 27, 30, and 31 above, in view of Yuh *et al.* in US Patent 6,261,729.

These rejections were presented in the last Office action. The Examiner noted that Kawamura discloses a photoconductive imaging member comprising, as seen in Figure 4, a conductive support 1, a charge generating layer 5, a first charge transport layer 4-1, and a

Art Unit: 1756

second charge transport layer 4-2 (¶¶ [0063], [0243], [0244], [0278], [0279]). In response to applicants' remarks and amendments, the Examiner noted the disclosure in ¶ [0253] where the first charge transport layer has a thickness of from about 3 to about 50  $\mu\text{m}$  and the second charge transport layer has a thickness of from 0.15 to 10  $\mu\text{m}$ . Also see ¶ [0279]. ). The exemplified thickness of the first charge transport layer is 20  $\mu\text{m}$  and 5  $\mu\text{m}$  for the second charge transport layer (Example 5), so that the total of the two charge transport layers have a thickness of about 25  $\mu\text{m}$ .

In addition to the conclusions of law presented in the last Office action, the Examiner takes the position that it would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the first charge transport layer at a thickness within the disclosure range of about 3 to about 50  $\mu\text{m}$ , such as 15  $\mu\text{m}$ , and the second charge transport layer at a thickness 10  $\mu\text{m}$  because for the first charge transport layer the discussed thickness is within the relatively narrow range of disclosed thickness and for the second charge transport layer the thickness is specifically recited at 10  $\mu\text{m}$ .

Applicants note in the response that disclosed thicknesses of the instant claims are considered to be a subgenus of the genus disclosed by the applied art. Kawamura does not provide motivation according to applicants to arrive at the claimed subgenus. The Examiner has carefully considered these remarks in light of MPEP 2144.08 but cannot agree with applicants' position. The "second" charge transport layer of Kawamura is specifically disclosed at a thickness of 10  $\mu\text{m}$ . This is the upper limit of the reference's disclosed range but still a valid teaching. With respect to the first charge transport layer, the reference teaches a range of from about 3 to about 50  $\mu\text{m}$  with 20  $\mu\text{m}$  exemplified. Although the reference does not provide a specific reference to a thickness of about 15  $\mu\text{m}$  (which would be required by the claims when the second charge transport layer is 10  $\mu\text{m}$  thick), the reference does provide guidance to sizes

Art Unit: 1756

at or near 20  $\mu\text{m}$ . This general direction of the teaching combined with the ranges disclosed would provide motivation for the artisan to produce a layer around values of 20  $\mu\text{m}$ , such as 15  $\mu\text{m}$ , when the artisan performs the routing experimentation expected for the artisan. There is reasonable direction to values near 15  $\mu\text{m}$ . Given the disclosures the artisan would have found it obvious to produce the first charge transport layer at a thickness of 15  $\mu\text{m}$  as part of routine optimization.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on Monday to Thursday from 5:30 to 4:00.

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher RoDee/  
Primary Examiner  
Art Unit 1756

cdr  
16 July 2007